CLAIMS

1. A steel for a crude oil tank characterized by containing, in mass, 0.001 to 0.2% C, 0.01 to 2.5% Si, 0.1 to 2% Mn, 0.03% or less P, 0.007% or less S, 0.01 to 1.5% Cu, 0.001 to 0.3% Al, 0.001 to 0.01% N and one or both of 0.01 to 0.2% Mo and 0.01 to 0.5% W, with the balance consisting of Fe and unavoidable impurities.

2. A steel for a crude oil tank according to claim 1, characterized by satisfying the following expression, in mass %;

Solute Mo + Solute W $\geq$ 0.005%.

3. A steel for a crude oil tank according to claim 1 or 2, characterized in that the carbon equivalent (Ceq.), in mass %, defined by the equation (1) is 0.4% or less;

$$Ceq. = C + Mn/6 + (Cu + Ni)/15 + (Cr + Mo + W + V)/5 \quad (1).$$

4. A steel for a crude oil tank according to any one of claims 1 to 3, characterized in that the Cr content is less than 0.1 mass %.

5. A steel for a crude oil tank according to any one of claims 1 to 4, characterized by further containing, in mass, 0.1 to 3% Ni and/or 0.1 to 3% Co.

6. A steel for a crude oil tank according to any one of claims 1 to 5, characterized by further containing, in mass, one or more of 0.01 to 0.3% Sb, 0.01 to 0.3% Sn, 0.01 to 0.3% Pb, 0.01 to 0.3% As and 0.01 to 0.3% Bi.

7. A steel for a crude oil tank according to any one of claims 1 to 6, characterized by further containing, in mass, one or more of 0.002 to 0.2% Nb, 0.005 to 0.5% V, 0.002 to 0.2% Ti, 0.005 to 0.5% Ta, 0.005 to 0.5% Zr and 0.0002 to 0.005% B.

8. A steel for a crude oil tank according to any one of claims 1 to 7, characterized by further containing, in mass, one or more of 0.0001 to 0.01% Mg, 0.0005 to 0.01% Ca, 0.0001 to 0.1% Y, 0.005 to 0.1% La

and 0.005 to 0.1% Ce.

9. A steel for a crude oil tank according to any one of claims 1 to 8, characterized in that the area percentage of microscopic segregation portions where the Mn concentration is 1.2 times or more the average Mn concentration in the steel is 10% or less.

10. A method for producing a steel for a crude oil tank according to any one of claims 1 to 9, characterized in that, in the event of applying accelerated cooling after hot rolling a slab containing components according to any one of claims 1 to 8, the average cooling rate of said accelerated cooling is in the range from 5 to 100°C/sec., the accelerated cooling end temperature is in the range from 600°C to 300°C, and the cooling rate in the temperature range from said accelerated cooling end temperature to 100°C is in the range from 0.1 to 4°C/sec.

11. A method for producing a steel for a crude oil tank characterized by applying tempering or annealing at 500°C or lower to a steel produced by the method according to claim 10.

12. A method for producing a steel for a crude oil tank according to any one of claims 1 to 9, characterized in that, in the event of applying normalizing after hot rolling a slab containing components according to any one of claims 1 to 8, the heating temperature of said normalizing is in the range from the Ac_3 transformation temperature to 1,000°C and the average cooling rate in the temperature range from 700°C to 300°C is in the range from 0.5 to 4°C/sec.

13. A method for producing a steel for a crude oil tank characterized by applying tempering or annealing at 500°C or lower to a steel normalized according to claim 12.

14. A method for producing a steel for a crude oil tank according to any one of claims 10 to 13, characterized by, before hot rolling a slab containing components according to any one of claims 1 to 8,

applying diffusion heat treatment to said slab at a heating temperature of 1,200 to 1,350°C and for a retention time of 2 to 100 hr.

15. A crude oil tank characterized in that the floor plate, deck plate, side walls and structural members thereof are made wholly or partially of a steel for a crude oil tank according to any one of claims 1 to 9.

16. A method for protecting a crude oil tank against corrosion characterized by removing, either mechanically or chemically, hot-rolling scale on the surface of a crude oil tank according to claim 15 and exposing the base steel substrate.

17. A method for protecting a crude oil tank against corrosion according to claim 16, characterized by forming one or more layers of a coating film 10 μm or more in thickness on the surface after hot-rolling scale is removed mechanically or chemically.